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EXAMINER	
HIRL, JOSEPH P	
ART UNIT	**PAPER NUMBER**
2129	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/066,096	Applicant(s) FORMAN ET AL.	
	Examiner Joseph P. Hirl	Art Unit 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 27 June 2005.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 31 January 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered June 27, 2005 for the patent application 10/066,096 filed on January 31, 2002.

2. The First Office Action of March 28, 2005 is fully incorporated into this Final Office Action by reference.

Status of Claims

3. Claims 1-27 are pending in this application.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Lazarus et al (U.S. Patent 6,134,532, referred to as **Lazarus**).

6. Para 12 below applies.

Claim 1

Lazarus anticipates a) receiving a hierarchy of nodes (**Lazarus**, c 24, l 55-67; c 25, l 1-15; Examiner's Note (EN): RDA module will create clusters or nodes that are positioned in n dimensional space that defines a hierarchy); b) receiving a plurality of training cases that are filed under said nodes (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such filing is done by the RDA module; and c) responsive thereto for determining a measure of coherence, for at least one node that has a local environment, by evaluating the training cases under the node with respect to the training cases in the local environment of the node (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: while the training is unsupervised, nonetheless training does take place and variance of cluster membership is a metric of cluster (node) coherence).

Claim 2

Lazarus anticipates determining, for the subtree at the node, the number of the training cases and the average prevalence of each feature in the training cases (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: subtree at the node would be adjacent clusters; average prevalence would be included as part of the conventional statistical analysis); determining, for the local environment of the node, the number of the training cases and the average prevalence of each feature in the training cases (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: see above comment); determining predictive features that distinguish the subtree of the current node from the local environment of the node; and generating a coherence value for the current node based on the average

prevalence of at least one predictive feature (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such would be in the analysis report).

Claim 3

Lazarus anticipates determining, for each said predictive feature, the degree of uniformity of the prevalence of the predictive feature among the children subtrees of the Node (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such would be the spacing (distance) of clusters; and wherein the step of generating a coherence value for the current node is based on said degree of uniformity and the average prevalence of at least one predictive feature (**Lazarus**, c 24, l 55-67; c 25, l 1-15).

Claim 4

Lazarus anticipates the hierarchy of nodes includes a topic hierarchy (**Lazarus**, c 9, l 8-27; EN: category is a topic); wherein the nodes are topics (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: clusters are nodes); and wherein the training cases includes one of labeled documents and feature vectors assigned to the topics (**Lazarus**, c 24, l 45-49; EN: database has labels).

Claim 5

Lazarus anticipates the predictive features includes at least one of words, multi-word phrases, noun phrases, document length, file extension type, other parameters related to documents. (**Lazarus**, c 8, l 20-32).

Claim 6

Lazarus anticipates computing at least one of information-gain metrics, mutual-information metrics, Chi Squared, Fisher's Exact Test, lift, odds-ratio, word frequency

among documents, and word frequency among all words in all documents. (**Lazarus**, c 24, l 55-67; c 25, l 1-15).

Claim 7

Lazarus anticipates the step of computing one of the metrics cosine-similarity, projection, and Chi Squared between the average feature prevalence vector and the vector of training case counts across the subtopics of the current node (**Lazarus**, c 24, l 55-67; c 25, l 1-15).

Claim 8

Lazarus anticipates generating a hierarchical coherence number by computing the average prevalence of the predictive feature with the greatest degree of uniformity (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: predictive feature is the cluster; uniformity would be minimal variance; average prevalence would be mean frequency that is part of the conventional statistical analysis).

Claim 9

Lazarus anticipates the step of generating a hierarchical coherence number by computing a weighted-average of the average prevalence of at least two features that are selected as both predictive and uniform (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is the variance of cluster membership related to "unity of focus").

Claim 10

Lazarus anticipates generating a hierarchical coherence number by computing a weighted-average of the average prevalence of the top k most prevalent features that are selected as both predictive and uniform, wherein k is a predetermined positive

integer (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is the variance of cluster membership related to "unity of focus" for k related vectors).

Claim 11

Lazarus anticipates the weighted-average employs as the weighting schedule one of the negative exponential function exp(-l) and the inverse rank function (1 /l), where l is the ordered rank of the most prevalent features that are selected as both predictive and uniform (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is the variance of cluster membership related to "unity of focus" for k related vectors where the inverse rank function of 1/l is integral to the definition of variance).

Claim 12

Lazarus anticipates generating a hierarchical coherence number by computing the average value of the average prevalence of the top k most prevalent features that are selected as both predictive and uniform, wherein k is a predetermined positive integer (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is the variance of cluster membership related to "unity of focus" for k related vectors established by the initial size of the training dataset).

Claim 13

Lazarus anticipates generating a hierarchical coherence number by employing a maximum, over all predictive features, of a projection between the average feature prevalence vector and the vector of training case counts across the subtopics of the current node (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is the variance of cluster membership related to "unity of focus" which will have a maximum).

Claim 14

Lazarus anticipates generating a hierarchical coherence number by employing a maximum average prevalence of the predictive features (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is the variance of cluster membership related to "unity of focus" which will have a maximum).

Claim 15

Lazarus anticipates assigning an aggregate-coherence value to a node in the hierarchy, based on an aggregation function of said determined measure of coherence over said node and of descendants of said node (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is the variance of cluster membership related to "unity of focus" which is aggregate on the cluster and related in terms of neighbors @ Fig. 8).

Claim 16

Lazarus anticipates the aggregation function includes one of a sum, average, weighted-average, minimum function, and maximum function (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: such is variance).

Claim 17

Lazarus anticipates using the coherence values of one or more nodes to modify the structure of the hierarchy to improve the coherence of the hierarchy (**Lazarus**, c 24, l 55-67; c 25, l 1-15; c 5, l 40-45; EN: profile vectors influencing coherence values evolve adjusting clustering and classification or structure).

Claim 18

Lazarus anticipates using the coherence values of one or more nodes to guide the selection of training cases for an automated classifier (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: cluster identified in the product vector database provides user information which will be applied to the adaptive profile vector set to discover (classify) behavior patterns).

Claim 19

Lazarus anticipates using the coherence values of one or more nodes to select a suitable classification technology to be employed to automatically classify items in the hierarchy (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: cluster identified in the product vector database provides user information which will be applied to the adaptive profile vector set to discover (classify) behavior patterns).

Claim 20

Lazarus anticipates a) a training case counter for determining the number of training cases under the subtree and the number of training cases for the local environment (**Lazarus**, c 8, l 20-32; c 25, l 28-35; EN: such is a training corpus where the subtree is the training cases associated with a cluster; b) an average prevalence determination unit for determining for at least one feature the average prevalence under the subtree and the average prevalence for the local environment (**Lazarus**, c 8, l 33-47) and c) a predictive feature determination unit for determining the set of predictive features that distinguish training cases of the subtree from documents of the local environment (**Lazarus**, c 8, l 33-47); and d) a coherence assignment unit for generating

a coherence metric number for each considered node based on at least one predictive feature (**Lazarus**, c 24, l 55-67; c 25, l 1-15).

Claim 21

Lazarus anticipates a-1) a subtopic uniformity determination unit for determining the uniformity of the distribution of said predictive features among the children subtopics of the considered node (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: variance determines uniformity, vectors associated with a cluster are the children of the cluster); wherein the coherence assignment unit generates a coherence metric number based on at least one predictive feature that is determined to be uniformly distributed among said children subtopics (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: the coherence metric is associated with a cluster).

Claim 22

Lazarus anticipates a) a coherence analyzer unit for receiving the topic hierarchy and a set of labeled training cases and responsive thereto for determining, for at least one current node under consideration, a measure of coherence by evaluating the training cases and at least one feature under the local environment of the current node and by evaluating the training cases and at least one feature under the subtree of the node under consideration (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: feature is associated with the classification or node; sub features are those associated with the instant classification).

Claim 23

Lazarus anticipates b) a user interface presentation unit coupled to the coherence analyzer unit for displaying a measure of coherence for one or more current nodes under consideration (**Lazarus**, c 24, l 55-67; c 25, l 1-15; Fig. 2A).

Claim 24

Lazarus anticipates b) feature extractor coupled to the coherence analyzer for receiving a set of labeled documents and at least one feature guideline and responsive thereto for generating the set of labeled feature vectors (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: labeled feature vectors are associated with classification).

Claim 25

Lazarus anticipates a _1) a training case counter for determining the number of training cases under each node subtree (**Lazarus**, c 25, l 28-35; EN: node subtree is the subgroup that is associated with a specific classification); a_2) an average prevalence determination unit for determining the average prevalence for at least one feature under each node subtree (**Lazarus**, c 25, l 28-35; EN: node subtree is the subgroup that is associated with a specific classification); and a_3) a predictive feature determination unit for determining predictive features under each node subtree (**Lazarus**, c 20, l 63-67; c 21; l 1-13); and a_ 4) a coherence assignment unit for generating coherence metric number based on at least one predictive feature (**Lazarus**, c 24, l 55-67; c 25, l 1-15).

Claim 26

Lazarus anticipates a 5) a subtopic uniformity determination unit for determining the degree of uniformity in the distribution of one or more said predictive features among the children of the current node (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: children of the current node are the children of the instant classification); wherein the coherence assignment unit generates a coherence metric number based on at least one uniform predictive feature (**Lazarus**, c 24, l 55-67; c 25, l 1-15).

Claim 27

Lazarus anticipates a) receiving a hierarchy and the training cases filed into said hierarchy (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: RDA module will create clusters or nodes that are positioned in n dimensional space that defines a hierarchy); b) determining a list of predictive features that distinguish documents of the current node's sub-tree from those in the current node's local environment (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: while the training is unsupervised, nonetheless training does take place and variance of cluster membership is a metric of cluster (node) coherence); c) assigning a coherence value to the current node based on the list of predictive features and based on one or more of their degree of predictiveness, their the degree of prevalence, and their degree of uniformity, wherein the degree of uniformity reflects how evenly distributed said predictive features are among the children subtrees of the current node based on the training cases under each child subtree (**Lazarus**, c 24, l 55-67; c 25, l 1-15; EN: variance establishes the degree of uniformity; children subtrees are the vectors associated with a given classification.

Response to Arguments

7. The objection to claims 5, 6 and 21 are withdrawn.

8. The rejection to claims 1-27 under 35 USC 101 are withdrawn.

9. Applicant's arguments filed on June 27, 2005 related to Claims 1-27 have been fully considered but are not persuasive.

In reference to Applicant's argument:

As stated in the disclosure of the present application, it is desirable for there to be a mechanism that analyzes hierarchies and determines the quality of the arrangement of topics and corresponding, documents for each place (e.g., a particular topic subtree) in the hierarchy. Specification, p. 3,11. 25-27. According to one embodiment in the disclosure of the present application, there is provided a method to determine a measure of coherence for the arrangement of hierarchically organized topics at each place in the hierarchy. Specification, p. 5,ll 2-4.

Quite differently, the Examiner's cited reference, Lazarus ct a1., shows a system and method for selecting and presenting personally targeted entities such as advertising, coupons, products and information content, based on tracking observed behavior on a user-by-user basis and utilizing an adaptive vector space representation for both information and behavior. The system is based on an information representation called content vectors that utilizes a constrained self organization learning technique to learn the relationships between symbols (typically words in unstructured text). Users and entities arc each represented as content vectors. Thus, Lazarus ct al. is not concerned with analyzing arrangements of hierarchies.

Examiner's response:

Para 13. applies. The claims and only the claims establish the metes and bounds of the invention.

In reference to Applicant's argument:

Claim 1 recites, inter alia, "receiving a hierarchy of nodes.". Yet, the Examiner cited Lazarus et al. at col. 24,ll. 55-67 and col. 25, ll. 1-15 to anticipate such claimed limitations. Specifically, the Examiner stated,

> "RDA module will create clusters or nodes that arc positioned in n dimensional space that defines a hierarchy." Office Action, p. 3.

The Examiner's assertion that the n dimensional space "defines a hierarchy" appears to be unsupported by Lazarus et al. It is respectfully submitted that Lazarus et al. merely shows an RDA module 236

performing unsupervised categorization or clustering of the contents of the profile vector database 225, the entity vector database 230 or both of these modules. Lazarus et al. further states,

> "The result of the clustering is a set of cluster centroid vectors that represent regions of high density. These centroids are the sane type of vectors that are used for all the other processing operations." Lazarus et al., col. 24, ll. 60-61.

Thus, Lazarus ct al. fails to show any hierarchy of nodes as claimed. Even assuming that the Examiner's interpretation of clusters in Lazarus et al. as the claimed nodes is correct, those clusters are not arranged in a hierarchy. At best. as admitted by the Examiner, Lazarus et al. shows that the clusters arc positioned in n dimensional space, which cannot be defined as a hierarchy as asserted by the Examiner, especially when Lazarus at al. fails to further show that such n dimensions of clusters arc arranged in a hierarchical manner. Furthermore, Lazarus et al. fails to show the clusters being arranged in a hierarchy as conventionally understood and, for example, shown in FIG. 5 of the present disclosure, wherein a parent node has children nodes that are sibling nodes to one another, and each of the nodes can have its own subtree.

Examiner's response:

Para 13. applies. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Limitations appearing in the specification but not recited in the claim are not read into the claim. Hierarchy merely means that components are ranked into levels of subordination or relationships. As Lazarus indicates @ c 24, l 55-67, and states: "The result of clustering is a set of cluster centroid vectors that represent regions of high density". Lazarus is locating such clusters, different from each other (relationships) such that the RDA system is able to find a set of word vectors that are closest to the content vector space to the centroid vector. The clusters are similar to nodes, have relationships (differences) and there are a plurality. Hence, Lazarus teaches receiving a hierarchy of nodes. Levels of subordination can be circular, outwardly arranged from a centroid.

Lazarus references the concept of "hierarchy" or a variant @:c2, l 58; c 3, l 4; c 3, l 54; c 3, l 55; c 3, l 58; c 9, l 24 and c 17, l 17.

In reference to Applicant's argument:

Claim 1 also recites, inter alia, "receiving a plurality of training cases that are filed under said nodes". In contrast, it is respectfully submitted that Lazarus et al. actual shows the training cases being used to create (rather than being filed under) the clusters that the Examiner defined as nodes. As mentioned earlier, Lazarus et al. shows an RDA module performing clustering of content vectors of the profile vector database and/or entity vector database. However, those content vectors are created from training vocabulary or cases (see Lararus et al. at col. 25, ll. 40-54). In effect, the training vocabulary is used to create the clusters and not to file under the created clusters. Indeed, once the clusters are created, there is no-longer a need for the training vocabulary to be filed under the clusters, and Lazarus et al. fails to disclose such feature.

Examiner's response:

Para 13. applies. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Limitations appearing in the specification but not recited in the claim are not read into the claim. Lazarus states: "Unsupervised categorization results in clustering of the contents of the profile vector database ..." Such is equivalent to: "receiving a plurality of training cases that are filed under nodes." Training vocabulary represents an acceptable set of training cases and to be sure, they are associated as Lazarus states with the cluster centroid ... or node.

In reference to Applicant's argument:

Claim 2 further recites, inter alia, "determining, for the subtree at the node, the number of the training cases..." (emphasis added). As stated above regarding claim 1, Lazarus et al. fails to show a hierarchy of nodes; therefore, there could not be any showing of a subtree at the node because such subtree indicates the node to be in a hierarchy. The Examiner's assertion that "the subtree at the node would be adjacent clusters" is not supported by Lazarus et al., especially when, as stated earlier, Lazarus et al. does not even show that the clusters arc arranged in a hierarchical manner. At best, adjacent clusters are merely neighboring clusters and not subtrees of each other.

Claim 2 also recites, inter alia, "determining predictive features that distinguish the subtree of the current node from the local environment of the node." While the Examiner has erroneously defined the claimed subtree in Lazarus et al., the Examiner made no mention of the claimed local environment of the node, i.e., clusters as defined by the Examiner, and how such local environment would be different from the erroneously-identified subtree.

Examiner's response:

Para 13. applies. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Limitations appearing in the specification but not recited in the claim are not read into the claim. A subtree is merely a node and hierarchical descendants or those clusters (nodes) that move up from a given node. The local environment of the node or cluster would be nodes or clusters in near vicinity. The local environment, consistent with the claim, can be part of the subtree ... different elements of it.

In reference to Applicant's argument:

Claim 20 recites, inter alia, "n subtree and a local environment in a hierarchy." Thus, claim 20 cannot be anticipated by Lazarus et al. for at least the same reasons set forth earlier regarding claims 1 and 2.

Claim 22 recites, inter alia, "nodes in a topic hierarchy" and "subtree of the node." Thus, claim 22 cannot be anticipated by Lazarus et al. for at least the same reasons set forth earlier regarding claims l and 2.

Claim 27 recites, inter alia, "receiving a hierarchy and the training cases filed into said hierarchy" and "children subtrees" of a node.

Examiner's response:

Para 13. applies. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Limitations appearing in the specification but not recited in the claim are not read into the claim. Above comments relate. "children subtrees" are merely other clusters that have neighboring subtrees.

Examination Considerations

10. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light

of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

11. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

12. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

13. Examiner's Opinion: paras 10-12 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The claims and only the claims form the metes and bounds of the invention.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Claims 1-27 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (571) 272-3685. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anthony Knight can be reached at (571) 272-3687.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

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(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571) 273-8300 (for formal communications intended for entry.

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Joseph P. Hirl
Primary Examiner
August 29, 2005